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For: A PACKAGING AND APPLICATOR DEVICE FOR A COSMETIC

SUBMISSION OF TRANSLATION OF PROVISIONAL APPLICATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with 37 CFR 1.78 (a)(5), attached is a translation of Provisional Application No. 60/461,810 filed on April 11, 2003. Upon information and belief, the translation is an accurate English translation of the provisional application as filed.

Respectfully submitted,

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Attached:
Translation of Provisional Application

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A PACKAGING AND APPLICATOR DEVICE FOR A COSMETIC

The present invention relates to packaging and applicator devices for a cosmetic or care product.

French patent application FR 2 701 196 discloses a device for applying a substance, which device comprises a receptacle and an applicator, the applicator comprising both a closure cap having a base portion suitable for being fixed onto the receptacle, and a loop hinged relative to the base portion about a hinge axis that is perpendicular to the longitudinal axis of the receptacle and to the longitudinal axis of the loop.

A need exists to provide other devices having improved ergonomics while being of relatively simple construction.

In one of its aspects, the invention thus provides an applicator comprising:

- a base portion carrying an applicator element;
- a handle portion rotably mounted on the base portion to turn about a fixed axis of rotation, the handle portion presenting a longitudinal axis, the applicator being characterizable by the fact that the axis of rotation and the longitudinal axis of the handle portion are not mutually perpendicular, and, in addition, are preferably not parallel. The longitudinal axis can thus extend obliquely relative to the axis of rotation.

The axis of rotation and the longitudinal axis may optionally intersect.

By turning the handle portion relative to the base portion, the user can modify the angle formed between the axis of the base portion and the axis of the handle portion.

The invention enables make-up to be applied using various hand movements depending on the desired effect, or enables the angle of attack of the applicator element, in particular the angle of attack of a mascara brush, to be modified during application.

By way of example, the invention also makes it possible to apply make-up to the left eye or to the right eye while using the same hand movements, when the applicator element is not circularly symmetrical.

5 Preferably, the axis of the base portion is not perpendicular to the axis of rotation.

 In a particular implementation of the invention, the base portion may also serve as a closure cap for a receptacle, the base portion being arranged, for example,
10 to be fixed onto a neck of the receptacle, e.g. by being screwed onto the neck. The base portion may thus include fixing means for fixing onto a receptacle, e.g. a screw thread.

 The base portion and the handle portion
15 advantageously co-operate in such a manner as to enable the user to lock the handle portion in at least one, and preferably in at least two predefined positions relative to the base portion.

 The handle portion and the base portion may, in
20 particular, co-operate so as to produce a click sound and/or generate a hard point when a predefined position is reached.

 The handle portion and the base portion are advantageously arranged in such a manner that the user
25 can turn the base portion relative to the handle portion using one hand only, e.g. by taking hold of the base portion between the thumb and the index finger, the handle portion being held by the other fingers against the palm of the hand.

30 At least one of the base portion and the handle portion may present, on its outside, at least one portion in relief thereby reducing slipping, e.g. bumps, ridges, grooves, or cells.

 At least one of the base portion and the handle
35 portion may also include a coating of, or may be made at least in part of, a material providing good grip, in particular a non-slip material, e.g. an elastomer.

The base portion may include a surface that is inclined relative to the axis of the base portion, and against which the handle portion bears. The surface may be substantially plane and may extend perpendicularly to the axis of rotation.

The hinge between the base portion and the handle portion may be achieved in various ways.

The hinge is preferably arranged in such a manner that while the applicator is being used the handle portion conserves its direction relative to the base portion as given to it by the user.

Contact between the base portion and the handle portion may thus take place with sufficient friction to obtain this result.

In a variant and/or additionally, at least one portion in relief, such as a step, or another suitable portion in relief, is made on at least one of the facing surfaces of the base portion and the handle portion so as to make it easier for the user to lock the handle portion in a predefined angular position relative to the base portion.

The base and handle portions may be assembled together in various ways, in particular by snap-fastening, hot or cold snapping like a rivet, riveting, or clamping.

At least one of the base portion and the handle portion may include a pin which is engaged in a housing of the other one of the base portion and the handle portion.

The pin may be snap-fastened, snapped like a rivet, riveted, or clamped in said housing.

By way of example, the base portion may be made with the above-mentioned pin, which may project from the above-mentioned inclined surface. The pin may be made of several parts, and in particular it may optionally be split. The pin may be provided with a step at one end so

as to be snap-fastened through a corresponding opening of the handle portion.

As a result of the pin being made on the base portion, the base portion may, for example, be used as a closure cap for a receptacle, without compromising the sealing of the closure, or complicating obtaining such a sealing.

The handle portion may include an insert enabling it to be fixed onto the base portion by snap-fastening. The insert may be fixed inside a piece defining the outside surface of the handle portion, the piece being made, for example, with a single opening at one end, through which opening the insert is put into place.

The handle portion may also be made with a pin arranged to be fixed, in particular to be snap-fastened, in a corresponding opening of the base portion.

The handle portion may be made with grooves or recesses. The handle portion may, in particular, be made with fins and a body to which the fins are connected, which body may include a housing in which there is engaged a pin secured to the base portion.

In a particular embodiment of the invention, the applicator includes a stem carrying, at one end, the applicator element, and secured at its other end to the base portion. The axis of the stem may coincide with the axis of the base portion. The applicator element may be fixed to the stem in removable manner.

At least one of the base portion and the handle portion may include at least one marker, in particular graduations, and the other one may include an index so as to enable the user to identify the annular position of the handle portion relative to the base portion.

In another of its aspects, the invention also provides an applicator comprising:

• a base portion having an axis and carrying an applicator element;

· a handle portion rotably mounted on the base portion to turn about an axis of rotation, the applicator being characterizable by the fact that the axis of rotation and the axis of the base portion are not mutually perpendicular.

In another of its aspects, the invention also provides an applicator comprising:

· a base portion carrying an applicator element, the base portion including fixing means for fixing onto a receptacle; and

· a handle portion rotably mounted on the base portion to turn about an axis of rotation.

The invention also provides a packaging and applicator device comprising an applicator as defined above, and a receptacle onto which the applicator can be fixed in removable manner.

The receptacle may include a wiper member arranged to wipe the applicator element while the applicator is being removed.

The applicator of the invention makes it quite easy to obtain leaktight closure of the receptacle without degrading the quality of the wiping.

The invention also provides a method of applying a cosmetic on a portion of the face or of the body, in particular on the lips, the eyelids, the eyelashes, the eyebrows, or the hair, the method being characterized by the fact that it comprises the following steps:

· loading an applicator element, which may be of any type, with cosmetic, the applicator element being secured to a base portion that is turnable relative to a handle portion about an axis of rotation which is not perpendicular and, in addition, is preferably not parallel to the longitudinal axis of the handle portion;

· between two different application modes, modifying the direction of the base portion relative to the handle portion.

When the applicator element is disposed at the end of a stem secured to the base portion, and when it is arranged to apply a substance onto keratinous fibers, in particular the eyelashes or the eyebrows, the method may include the following steps:

- applying make-up to keratinous fibers with the stem substantially horizontal, for example, and with a first inclination of the stem relative to the axis of the handle portion, said first inclination being

substantially zero, for example;

- applying make-up to keratinous fibers with the stem substantially vertical, and with a second inclination of the stem relative to the handle portion, different from the first, e.g. a maximum inclination of the stem relative to the axis of the handle portion.

By way of example, during the first step it is possible to turn the stem about its axis, which may be useful when the applicator element is constituted by a brush. In the second step, make-up is applied with the brush but without turning the stem about its axis.

When the applicator element is not rectilinear and presents a free end that is offset to one side relative to the axis of the stem, the handle portion and the base portion may be arranged in such a manner that when the axis of the handle portion makes a maximum angle with the axis of the stem, the handle portion extends to the same side as the free end of the applicator element, which may make application easier.

The invention will be better understood on reading the following detailed description of non-limiting embodiments thereof, and on examining the accompanying drawings, in which:

- Figure 1 is a diagrammatic perspective view of a packaging and applicator device constituting an embodiment of the invention;

· Figure 2 is an elevation view of the Figure 1 device, the handle portion being in alignment with the base portion.

· Figure 3 is a view similar to Figure 2 after the handle portion has been turned through half a turn relative to the base portion;

· Figure 4 is a diagrammatic longitudinal section of the Figure 3 device;

· Figure 5 is a diagrammatic and fragmentary axial section of a variant embodiment;

· Figure 6 shows the possibility of making the handle portion with a pin that is capable of being snap-fastened in the base portion;

· Figure 7 is a view similar to Figure 5, showing another way of mounting the handle portion on the base portion;

· Figure 8 is a cross section on VIII-VIII of Figure 7;

· Figure 9 is a large scale view of the detail IX of Figure 7;

· Figures 10 and 11 are diagrammatic and fragmentary longitudinal sections showing other variant embodiments of the hinge between the handle portion and the base portion;

· Figures 12 and 13 are diagrammatic and fragmentary elevation views of variant embodiments of the applicator;

· Figure 14 is an elevation view of a device constituting a variant embodiment of the invention;

· Figure 15 shows how make-up can be applied to the eyelashes by means of the applicator of Figures 1 to 3, the handle portion being substantially in alignment with the base portion;

· Figure 16 shows the eyelashes being made up after the handle portion has been turned through 180° relative to the base portion;

· Figure 17 shows the eyelids being made up with another device made in accordance with the invention;

· Figures 18 and 19 show the lips being made up with another device made in accordance with the invention;

· Figure 20 is a diagrammatic elevation view of the join between the handle portion and the base portion in another variant embodiment of the invention; and

· Figure 21 is a view in isolation of an applicator element constituted by a comb.

The device 1 shown in Figures 1 to 4 comprises a receptacle 2 of longitudinal axis X, and an applicator 3 capable of being fixed in removable manner on the receptacle 2.

The applicator 3 includes a base portion 10 of axis Z, and a handle portion 20 of axis Y that is capable of turning relative to the base portion 10 about an axis of rotation R forming a non-zero angle α with the axis Y. The axis R is fixed relative to the base portion.

The receptacle 2 contains a substance P, e.g. mascara, in which case the applicator may include a stem 4 that extends along the axis Z of the base portion 10, and that is provided at its bottom end 4a with a brush 5.

The brush may be of any type and may, for example, comprise a conventional twisted core 6 with bristles trapped between the branches of the core 6.

By way of example, the stem 4 is secured at its top end 4b by an insert 7 disposed inside the base portion 10.

In the example under consideration, the core 6 is not rectilinear, such that the distal end 5a of the brush 5 is not in alignment with the axis Z, but naturally, it is not beyond the ambit of the present invention when the core 6 is rectilinear.

The receptacle 2 is provided with a neck 8 of axis X and with an outside thread, and in which there is fixed an elastomer wiper member 9 having one end 9a that defines a circular opening arranged to press against the stem 4. The base portion 10 includes an inside thread of axis Z, thereby enabling said base portion to be screwed

onto the neck 5, the axes X and Z then coinciding. As can be seen in the drawing, the wiper member 9 can cover the top edge of the neck 8 and can thus contribute to obtaining a sealed closure for the receptacle when the insert 7 comes to bear thereon once the base portion 10 has been screwed onto the receptacle 2.

Portions in relief 10a, such as cells for example, can be made in the outside surface of the base portion 10 so as to make said base portion easier to grip. In a variant, the base portion 10 can be made with an elastomer coating, which can be overmolded, for example. The base portion 10 can also be made integrally, in a material providing good grip, in particular an elastomer.

In the example shown, the direction of the stem 4 relative to the axis Z of the base portion is constant, but the stem could be articulated relative to the base portion by means of a ball-and-socket joint.

By mounting the handle portion 20 to be rotatable relative to the base portion 10, and by inclining the axis of rotation R, it is possible, by turning the handle portion 20 through half a turn about the axis R, to pass from a position shown in Figure 2, in which the longitudinal axis Y of the handle portion 20 is in alignment with the axis Z, to a position shown in Figure 3, in which the axis Y forms an angle β with the axis Z.

The handle portion 20 can be mounted on the base portion 10 in numerous ways.

In the example in Figures 1 to 4, mounting is achieved by means of a pin 30 projecting from an inclined surface 31 of the base portion 10, with the handle portion 20 being engaged on the pin. The handle portion can include an insert 34 provided with a circular opening 33 inside which the pin 30 can be retained by snap-fastening, by means of a step 30a formed in its end. The inclined surface 31 extends generally perpendicularly to

the axis R. The inclined surface 31 forms a join plane between the base portion 10 and the handle portion 20.

The inclination of the surface 31 relative to the axis Z influences the maximum angle β that can be
5 obtained.

Advantageously, tabs 37 are provided on the base portion 10, projecting from the surface 31, so as to cooperate with a portion in relief 38 of the insert, so as to generate a click sound and a hard point when the
10 handle portion is in one of the positions shown in Figures 2 and 3.

The pin 30 can be made in some other way, and in particular can be split axially, as shown in Figure 5.

In this figure, it can be seen that the handle
15 portion 20 can be made with a circularly cylindrical body about the axis Y, the body being provided at its bottom end with a rim 39 onto which the pin 30 can be snap-fastened.

As shown, the cylindrical body can be closed at its
20 top end by a closure member.

Further variant embodiments of the hinge are described below with reference to Figures 6 to 11.

The handle portion 20 can be made with a pin arranged to be snap-fastened in a corresponding opening
25 of the base portion, as shown in Figure 6. In this figure, it can be seen that the handle portion 20 can include a split pin 40 capable of being snap-fastened in a circular opening 42 of the base portion 10.

The handle portion 20 can also be made with fins 45,
30 as can be seen in Figures 7 and 8. The fins 45 can be connected to a body 46 which can include, at its bottom end, a housing 47 into which the pin 30 can be snap-fastened, as shown more particularly in Figure 9.

The fins 45 can come to bear, via their bottoms 45a,
35 against the inclined surface 31 of the base portion 10, so as to slow down rotation of the handle portion 20 relative to the base portion 10.

Where necessary, the base portion can be made with at least one bump 48 which the user can feel each time a fin 45 passes thereover, thereby making it easy, where necessary, for said user to position the handle portion in the desired position. The handle portion can optionally be mounted on the base portion with a small amount of clearance, so as to make it easier to go past such a positioning portion in relief.

As shown in Figure 10, the handle portion 20 can also be made in a single piece with a housing 50 provided at one end with a rim 51 onto which the pin 30 can be snap-fastened. The housing 50 can open out to the outside via an opening 52, which can be closed, where necessary, by a closure member, not shown.

The pin 30 can be split and a locking peg 54 can be engaged therein.

The pin 30 can also have its end snapped like a rivet, as shown in Figure 11.

The handle portion 20 and the base portion 10 can be made as shown in Figure 12 with graduations 55 on one, and an index mark 56 on the other, in such a manner as to enable the user to identify accurately the angular direction of the handle portion 20 relative to the base portion 10.

The handle portion 20 can be made with shapes other than those shown in the above-described figures, and by way of example, Figure 13 shows a handle portion that is not circularly symmetrical about the axis Y, since it presents at least one concave edge 57.

The receptacle can be made other than with a cylindrical body, and by way of example, Figure 14 shows a receptacle 2 including a generally frustoconical body, flaring upwards. At its top end, the receptacle 2 can be provided with an add-on part 58 including a threaded neck and carrying a wiper member constituted by a block of foam, for example.

By way of example, the packaging and applicator device of Figures 1 to 4 can be used as follows.

While the axes Z and Y are substantially in alignment, the user can apply make-up to the eyelashes with the stem 4 substantially horizontal, as shown in Figure 15, it being possible, where necessary, to cause the brush to revolve, so as to make it easy for the eyelashes to penetrate between the bristles of the brush and for the substance to be smoothed onto the eyelashes.

The user can then apply make-up to the eyelashes with the end of the brush, in particular to separate them, once the handle portion 20 has been turned through 180° relative to the base portion, in such a manner that the angle β formed between the axes Z and Y is at a maximum. The user can thus use the brush with the stem 4 substantially vertical, as shown in Figure 16. It should be observed in this figure that the free end 5a of the brush is situated on the same side as the handle portion 20.

Naturally, the invention is not limited to applying make-up to the eyelashes and the eyebrows, and an applicator in accordance with the invention can be used, in particular, for applying make-up to the eyelids, as shown in Figure 17, or to the lips, as shown in Figures 18 and 19. In Figure 18 it can be seen that the angle between the axes Y and Z can be at a maximum while applying make-up to the bottom lip, and in Figure 19 it can be seen that said angle can be at a minimum while applying make-up to the top lip.

As shown in Figure 20, the handle portion 20 can be made in such a manner that it is not a continuation of the base portion 10, with a shoulder 100 being formed at the join between the two. Such a disposition makes it possible, for example, for the axes Z and R not to intersect at the inclined surface 31. In this embodiment, the outside diameter of the base portion is greater than the outside diameter of the adjacent end of

the handle portion. In a variant, it is also possible for the axes Y and R not to intersect at the inclined surface 31.

5 The applicator element can present flocking on its surface. The applicator element could also be a comb, as shown in Figure 21, a brush having a non-twisted core, or an applicator with capillary retention. The applicator element could be made in a cellular and/or elastomer material, in particular a foam.

10 The device can be arranged to enable it to be placed in a microwave oven, so as to raise the temperature of the substance, where necessary.

15 All the characteristics of the various above-mentioned embodiments of the invention can be combined together.

The base portion, as well as the handle portion, could be of non-circular section, e.g. oval or prismatic.

20 Throughout the description, the term "comprising a" should be understood as being synonymous with "comprising at least one", unless specified to the contrary.

CLAIMS

1. An applicator (3) comprising:
 - a base portion (10) carrying an applicator element (5),
 - 5 · a handle portion (20) rotably mounted on the base portion to turn about a fixed axis of rotation (R), the handle portion presenting a longitudinal axis (Y), the applicator being characterized by the fact that the axis of rotation (R) and the longitudinal axis (Y) of the
 - 10 handle portion are not mutually perpendicular.
2. An applicator according to claim 1, characterized by the fact that the axis of rotation (R) and the longitudinal axis (Y) are not parallel.
- 15 3. An applicator according to claim 1 or claim 2, characterized by the fact that the axis of rotation (R) and an axis (Z) of the base portion are not mutually perpendicular.
- 20 4. An applicator according to any one of the preceding claims, characterized by the fact that the base portion (10) and the handle portion (20) co-operate in such a manner as to enable the user to lock the handle portion
- 25 in at least one predefined position relative to the base portion, and preferably in at least two predefined positions.
- 30 5. An applicator according to any one of the preceding claims, characterized by the fact that the handle portion (20) and the base portion (10) co-operate so as to produce a click sound when a predefined position of the handle portion relative to the base portion is reached.
- 35 6. An applicator according to any one of the preceding claims, characterized by the fact that the base portion (10) also serves as a closure cap for a receptacle (2).

7. An applicator according to the preceding claim,
characterized by the fact that the base portion (10) is
arranged to be fixed onto a neck (8) of the receptacle,
5 in particular by being screwed onto the neck.

8. An applicator according to any one of claims 1 to 7,
characterized by the fact that the handle portion (20)
and the base portion (10) are arranged in such a manner
10 that the user can turn the base portion (10) relative to
the handle portion (20) using one hand only.

9. An applicator according to any one of the preceding
claims, characterized by the fact that at least one of
15 the base portion (10) and the handle portion presents, on
its outside, at least one portion in relief (10a) thereby
reducing slipping.

10. An applicator according to any one of the preceding
20 claims, characterized by the fact that at least one of
the base portion (10) and the handle portion is made at
least in part out of a material providing good grip, in
particular a non-slip material such as an elastomer.

25 11. An applicator according to any one of the preceding
claims, characterized by the fact that the base portion
(10) includes a surface (31) that is inclined relative to
the axis (Z) of the base portion (10), and against which
the handle portion (20) bears, the axis of rotation (R)
30 extending orthogonally to the inclined surface.

12. An applicator according to any one of the preceding
claims, characterized by the fact that at least one
portion in relief (37, 38; 48) is made on at least one of
35 the facing surfaces of the base portion (10) and the
handle portion (20) so as to make it easier for the user

to lock the handle portion (20) in a predefined angular position relative to the base portion (10).

- 5 13. An applicator according to any one of the preceding claims, characterized by the fact that at least one of the base portion (10) and the handle portion (20) includes a pin (30; 40) which is engaged in a housing of the other one of the base portion (10) and the handle portion (20).
- 10 14. An applicator according to claim 13, characterized by the fact that the base portion (10) is made with a pin (30).
- 15 15. An applicator according to claim 14, characterized by the fact that the pin (30) is provided with a step (30a) at one end so as to be snap-fastened through a corresponding opening (35) of the handle portion.
- 20 16. An applicator according to any one of claims 13 to 15, characterized by the fact that the pin (30) is split.
- 25 17. An applicator according to any one of the preceding claims, characterized by the fact that the handle portion includes an insert (34) enabling the handle portion (20) to be fixed onto the base portion (10) by snap-fastening.
- 30 18. An applicator according to claim 13, characterized by the fact that the handle portion is made with a pin (40) arranged to be snap-fastened in a corresponding opening (42) of the base portion.
- 35 19. An applicator according to any one of claims 13 to 16, characterized by the fact that the handle portion is made with fins (45) and a body (46) to which the fins are connected, the body including a housing (47) in which

there is engaged a pin (30) secured to the base portion (10).

20. An applicator according to any one of claims 13 to
5 16, characterized by the fact that the handle portion (20) includes a cylindrical body provided at one end with a rim (39) onto which a pin (30) secured to the base portion can be snap-fastened.

10 21. An applicator according to any one of the preceding claims, characterized by the fact that at least one of the base portion and the handle portion includes at least one marker, in particular graduations (55), and the other one includes an index (56) so as to enable the user to
15 identify the annular position of the handle portion relative to the base portion.

22. An applicator according to any one of the preceding claims, characterized by the fact that it includes a stem
20 (4) carrying, at one end, the applicator element, and secured at its other end to the base portion (10).

23. An applicator according to the preceding claim, characterized by the fact that the applicator element is
25 a brush (5).

24. An applicator according to claim 23, characterized by the fact that the brush includes a non-rectilinear core
(6).

30 25. An applicator according to any one of claims 1 to 22, characterized by the fact that the applicator element is a flexible endpiece, in particular a flocked endpiece, a foam, or a comb.

35 26. An applicator according to any one of the preceding claims, characterized by the fact that the applicator

element (5) is connected in removable manner to the base portion (10).

27. An applicator according to any one of the preceding
5 claims, characterized by the fact that the applicator
element (5) presents a free end situated on the same side
as the handle portion (20) when the angle (β) between the
axes (Z) of the base portion and (Y) of the handle
portion is at a maximum.

10

28. An applicator according to any one of the preceding
claims, characterized by the fact that the base portion
(10) includes fixing means for fixing onto a receptacle.

15

29. A packaging and applicator device, characterized by
the fact that it comprises:

- an applicator (3) as defined in any one of the
20 preceding claims;
- a receptacle (2) onto which the applicator can be
fixed in removable manner.

30. A device according to claim 29, characterized by the
25 fact that the receptacle includes a wiper member (9)
arranged to wipe the applicator element (5) while the
applicator is being removed.

31. A method of applying a cosmetic on a portion of the
30 face or of the body, in particular on the lips, the
eyelids, the eyelashes, the eyebrows, or the hair, the
method being characterized by the fact that it comprises
the following steps:

- loading an applicator element (5) with cosmetic,
35 the applicator element being secured to a base portion
(10) that is turnable relative to a handle portion (20)
about an axis of rotation (R) which is not perpendicular

and, in addition, is preferably not parallel to the longitudinal axis (Y) of the handle portion (20);

- between two different application modes, modifying the direction of the base portion (10) relative to the
- 5 handle portion (20).

A B S T R A C T

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"A packaging and applicator device for a cosmetic"

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The present invention relates to an applicator (3) comprising: a base portion (10) carrying an applicator element (5); and a handle portion rotably mounted on the base portion to turn about a fixed axis of rotation (R),
15 the handle portion presenting a longitudinal axis (Y).
The axis of rotation (R) and the longitudinal axis (Y) of the handle portion are not mutually perpendicular.

20

Figure: 4